Saint Paul ATARI Computer Enthusiasts

SPACE

An independent computer user group

SPACE Meeting Friday, July 8th at 7:30pm

MAST Meeting Friday, July 15th at 7:30pm

At the Falcon Heights Community Center
2077 Larpenteur Avenue West

MAST+ Programmers Meeting
Monday, July 18th at 7:30pm

At First Minnesota Bank Building - second floor
Lexington and Larpenteur, in back of building

MAST
Minnesota Atari ST

DISCLAIMER

SPACE/MAST BULLETIN BOARDS

SPACE/MAST East (XE) - BBS Phone: (612)-774-0135
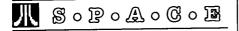Sysop: Bruce Haug (Home Phone: 774-6226)

SPACE/MAST West (ST) - BBS Phone: (612)-560-9254
Sysop: Steve Pauley (Home Phone: 560-2917)

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1/2 page - 4" vertically x 5 1/8" horizontally - $ 15/mo., $140/yr.
Full page - 8" vertically X 5 1/8" horizontally - $25/mo., $240/yr.
Club members classified - 50¢ per 40 characters, $2.50 minimum per ad.
Send to : Steve Pauley • 2547 - 83rd Court N. • Brooklyn Park, MN 55444

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BYTES from the SPACE PRES
by Larry Vanden Plas

July is SPACE birthday month as our user group celebrates six years of service to the ATARI user. We will have a special theme birthday cake and pop. We encourage you to bring something (optional) and join us.

Thanks to all of you who came to the June meeting. Our turnout was about fifty per cent more than normal. Joe Danko and Greg Peasley again outdid themselves. The June Disk of the Month (DOM) had a new and improved version of SPACE index of DOM's hidden on the backside in addition to everything else squeezed onto the disk. Thanks too to those who lent or brought GAMES software. It was really great to see the classic games of the past back in action. Thanks to Bob Floyd, a past SPACE pres, for demostrating winning game techniques.

One of the issues we discussed at the meeting was how can we get classic software. Some of it is hard to find. We discussed having an exchange column in the newsletter, writing to publishers and other ideas. What do you think? Drop us a note or come to the meeting and give us your opinion.

As you will find in Bruce Haug's BBS column, we were successful in getting the 10 megabyte hard disk that we discussed at the meeting for the Bulletin Board System. Thanks to Mark Vallevand for bringing the offer to our attention. It sounds like SPACE/MAST WEST will also be adding one of the 10 MB hard disks to increase its storage.

We have been fortunate living behind the leading edge of microcomputer technology. During the last year, the 1200 Baud modem, 80 column box and new disk drive have been delivered. Hopefully the supply of this hardware will increase

and the related software will show up. All of it is reasonably priced and improves the performance of our present computers even further. The success of the XE Game System will likely cause another wave of ATARI users to join our group. As I read about the battles regarding OS/2 and the 386 micros, I am happy to pay hundreds of dollars to be an 8-bit user rather than the thousands of dollars to chase a working system on one of the leading edges of technology.

The June issue of Current Notes brought an interesting article about a desktop environment for the Atari 8-bit. It's called the Graphics Operating Environment (GOE). It may be operated using an ST mouse, a joystick or keyboard. In a comparison with the excellent GEOS program made available for the Commodore 64, it was pointed out when you load GEOS on the 64 you are almost out of memory. GOE does not rob memory because it is on a cartridge. It may be used on all Atari computers with 48K or more. Although the first external program developed for it is CELEBRITY COOKBOOK, a high powered word processor and paint program are on the way. The program is a product of Merill Ward. We will try to get further info.

We are planning a flea market for August so start planning what you would like to buy or sell. Two other potential surprises are possible in August. One may result in a joint meeting with MAST on a night other than our regular meeting nights so stay in touch.

◆ AUGUST SPACE MEETING — FLEA MARKET — PREPARE NOW.

After Last Night (from the 8-Bit VP)
by John Novotny

The classic games at the June meeting made for a fun night. Thanks for those who brought stuff to show (Bob Floyd with Miner 49er, BB Strikes Back, Oils Well; Mark Valevand with Ballblazer; Bob Siede loaned us Preppie and Alley Cat; sorry for others I missed). If you have any other great titles we missed, let us know and we can do this again down the road a bit. One idea that arose from this fun night was that maybe we as a group could do something about making some of these old titles available to the more recent ATARI users. I do remember in the brochures that came with my 800XL statements about the numbers of programs available. Maybe with some work, like getting some letters off to software houses, dealers and distributers, and ATARI Corp., we could have some of these made available again. Let's make it a club project, and share the results with our members and other 8-bit users.

One note about the July meeting. Larry is planning the anniversary party, complete with cake and pop. To this I am adding about 35 lbs of old magazines (Computes, Analog, Antic). These will be available for the taking (they will be spread out so everyone should get a chance), no obligation. So join the party.

The rest of this article will be devoted to telling you about another of my programs. Some time ago, our disk librarian got tasked with looking at the program BADD (short for BAnner Data Development). In anticipation of this program being made available to the community of ATARI users, this is to provide an overview (make your plans accordingly!). BADD is a utility to help generate character sets for the text-mode banner program such as CURSIVE from Glen Kirschenmann. As we are quite familiar, our better known banner programs usually print using graphics mode, generally much slooower than text mode. With a program like CURSIVE, you don't have to start it in the morning if you need a 10-ft banner for that evening. But it would be nice to see some different styles of characters! so BADD can help.

CURSIVE is an ATARI BASIC program that uses a set of DATA statements to define the characters. These statements start at line numbers calculated by the ASCII value times 10. This leaves up to 10 lines to define a character. The DATA statements contain numeric values that define a character as follows:
- The first number is a count of related number pairs
- The number pairs follow the count
- The first number of each pair is the column number to start printing
- The second number is the count text characters to print

For each number pair, if the starting column is greater than the last column as determined by the previous number pair, then the number pair adds to the current print line. If the starting column becomes equal or less then the last previous column, then the definition for this print line is complete (causing it to be printed), and a new print line definition is started. Well OK, so what's this got to do with this BADD utility ? Glad you asked, banner breath. BADD converts graphics images of character sets you have begged, borrowed, or made. These graphics images come from disk files you make known to this BADD program, and he in turn makes a file of BASIC DATA statements (line numbers and all) in another disk file. These can then be merged with the banner program by LOADing the banner program, and then ENTERing the DATA statements file. I know you are very excited to know the knitty gritty of all this right now, and I could tell all. But the program has 'complete' documentation, and you will want hands-on when you get further into this, so control yourself. I might add that I am quite proud of the ML routine that is the workhorse in this program. The algorithm used sounded exciting when Glen explained it to me, so that is the main reason I got into this at all. Once you get into it though, you'll see that you can do some rather interesting things, maybe quite unrelated to letters, numbers or punctuation. The fun in computing for me is to do something just a little different, and I hope this can be a tool with which you can also be creative.

SPACE 8-bit Disk Library News
by Joe Danko

LIBRARIANS: Joe Danko & Greg Peasley
SPACE Disk-Of-The-Month JULY 1988

This month the disk has two sides again. Side A is the usual stuff:

* DOS	SYS	037
* AUTORUN	SYS	001
* DUP	SYS	001
* RAMDSKM	COM	007
* MENU		054
* LZ	DOC	098
* LZ	COM	024
* DZ	COM	027
* HEADER	BAS	038
* HEADER	COM	066
* PRNTRUN2	BAS	027
* USCOPIER	COM	036
* KISMET	BAS	102
* ANIMAKXL	BAS	084
* UPWALK	BAS	044
* BRAKEOUT	BAS	033
* HELP	DOC	025

003 FREE SECTORS

LZ.DOC, LZ.COM, DZ.COM These three files make up a package called ALFCRUNCH 1.2 that is a non-compatible enhancement of ARC. Its main attributes are speed and the ability to work closely with SPARTADOS. It supports SPARTA command line input and subdirectories. It cannot process ARC files and ARC cannot process ALF files. An example of ALF vs. ARC Compressing a 51K byte text file:
ARC compressed to 31K bytes in 5 minutes.
ALF compressed to 27K bytes in 1 minute.

HEADER.BAS, HEADER.COM   A BASIC program and its compiled brother, these will examine a file header. If the file is BASIC, this fact is reported and that is the end. If the file is ATARI binary-loadable the display will list start address and length information. It will also find and report this information for each segment of a multi-segment file.

PRNTRUN2.BAS   A BASIC printer utility to print text files in three columns.

USCOPIER.COM   This DOS-loadable program is able to copy disks in any format, SD, 1050 ENHANCED, and DD. It is also supposed to be able to handle ultraspeed formats.

KISMET.BAS   A YAHTZEE clone that is a bit more fun to play. Written in ATARI BASIC, it needs a joystick. ANIMAKXL.BASö   ATARI screen character animator. You build full-screen animations using the cursor and keyboard characters. The screens can be save, stored, retreived and edited. This type of program is used to build the fancy animated screens seen on many BBS systems. Perhaps some of you creative souls could make some new entry screens for our BBS to replace Frank's well-used ship.

UPWALK.BAS   A tricky little game in ATARI BASIC that needs a joystick. I'm still not sure of all the rules.

BRAKEOUT.BAS   A BREAKOUT clone but with a twist. It is designed to be played by two with two joysticks. Each player tries to break through thr other players brick wall.
Side B:
*MYCOPYR Ver.1c by G. Smith For Info, Please Read MYCOPYR DOC
*614 FREE SECTORS

MycopyR is self-booting so it is about all that can be on a disk side. If you want to make a copy, use it to copy itself or use USCOPIER on the other side. There is also a DOC file that shows up if you look at the directory. Do a DOS file copy to a printer to get the DOC on paper or DOS copy to E: if you want to view it. An even

easier way is to get the DOM MENU program active then put in side B, select LOAD and then select the MYCOPYR.DOC file.

Boot side B with no cartridges or translators. XL/XE users don't need to hold down OPTION. The program automatically finds any RAM upgrades and will run in any ATARI with at least 16K.

It will copy any format disk, including 1050 ENHANCED and US DOUBLER ultraspeed. It can also make multiple copies.

Is anyone out there paying attention???? The library is still searching for a good copy of the DOM from November, 1985. The person gets a free disk of whatever for bringing it in so we can copy it.

SPACE June Meeting Minutes
by Ernie Costello

1. The meeting was called to order June 10, 1988 at 7:30 PM by President Larry Vanden Plas.

2. Treasurer's Report: Larry Vanden Plas. May income was $167, expenses $256 (including $107 for bulk disk buying) leaving a balance of $304.

3. Vice President's Report: John Novotny. John said he is going to investigate how we can get the rights to re-publish out-of-print classic software and games. We could then issue them as DOM's and possibly retail them beyond the club.

3. President's Report: Larry Vanden Plas. SPACE's booth at the electronic Amateur Fair, June 3 & 4 at the fair grounds was a success. We sold a lot of DOM's and generated interest in the club. He brought a copy of Computer Shopper magazine with a article on using a second computer as a ram disk.

4. The Secretary's Report was accepted as printed in the newsletter.

5. Offers and Deals. We tentatively plan on having a swap meet in August. We may have a line on IBM hard disks for $30.00! Anyone know how to set them up for 8-bit

use?

6. Service Problems. Larry dispayed his non-functioning 1050/850 power supply which he had cut open. Anyone know how to repair them? Bruce Haug was recalled as having repaired one.

7. BBS. Bruce has the BBS running with with his old backup drives until the hard disk can (?) be repaired.

8. DOM: Joe Danko demoed the DOM featuring a new index and menu program. He is also working on an index of the club's library of old special programs. Also an ST was set up and run under emulation as an 8-bit machine. The software is still being refined-we will keep you informed!

9. The rest of the evening was devoted to game demos.

SPACE BBS NEWS
By Bruce Haug, Sysop

A special thanks to Mark Vallenvand, the SPACE member who spoke up at the last SPACE meeting and said he knew where to get a 10 meg HARD DRIVE cheep. We now have the BBS up and running with 11 meg of disk, 1 meg of MIO, and 10 meg on the HARD DRIVE. The Minescribe drive was 100% compatable with our old controller, power supply, and cables. The mounting brackets, (holes tapped into the drive), were in the right places also. All I did was unbolt the old 5 meg full height Shugart, and bolt in the Half high Minescribe.

I used the old case, muffin fan, power supply, and controller card. Again THANKS MARK, we couldn't have done it for $30.00 without you providing the information on the source. By the way it came from the Ham Fest at the State Fair Grounds, so son't ask where we bought it !! WE CAN NOT GET YOU ONE FOR THE SAME PRICE.. The old one is making a good paper weight.
SYSOP 8-BIT BBS

Mail Order Woes
The first part of this article was printed in the July issue.

I haven't seen the used printer cable and I've left several messages to the guy on the BBS and on another one that I know he is on. No answer to them, and still no cable.

Along about this time, my ex-wife and oldest son had asked me to get them a used printer set-up for the old expanded 400. 48K and a 'B' Key, keyboard. The 1200 baud modem still laid on the shelf and I Had been thinking of a little faster printer. No Mail Order, this time.

I called around, checking prices and avaliability. I need a P:R:Connection to handle the printer and modem. I had already picked up a new modem cable, so I would still need a printer cable. The one I had bought off the BBS I had written off. I have the guy's name and I see his name around on the BBS. He's ST now, but, Someday - -. Anyway, Feb 29th, I break down and calling the local stores, I find one that has a P:R:C, Epson LX800 and the printer cable. They'll even throw in a pack of 500 sheets of fan-fold paper. I won't say what a paid, but it was almost as good as mailorder and I could get it NOW. Which is what I did.

Back at the apartment, I read the manual on the P:R:C. Set it up. Then the LX800 and get it set up and connected to the P:R:C. That works. Now the modem comes off the shelf. (See how I can be paitient.) I go through the instruction manual on the modem, for about the 10th time, and connect it to the P:R:C. Power on and go! - - - DEAD! No response! I get the book out and try just 'AT' and a CR. The modem should respond with an 'OK'. Nothing!

I try several different software packages with the same results. It's late, so I'll continue tomorrow. The next afternoon, I check the cable. Only 4 pins. On the package, someone has crossed out 'Serial Printer Cable' with a ball point pen and written in 'Modem Cable'. With my

limited knowedge of RS 232, I still think it takes more than 4 lines to operate a modem. Calling the store I bought it from, they tell me to bring it in and they'll exchange it. I even dug out the sales slip and was back in 30 minutes. 10 miles in rush hour traffic on city streets. I counted 5 traffic lights and 6 four-way stops, one way. (That's 10 miles, round trip.)

This cable had 8 wires and it WORKED! Glory Be! I'm on the air at 1200 baud.

Now what do think will happen next? It was March 1st that I got it working, right? Yep. March 3rd, Thursday, a package from CMO! By now, I knew exactly how to tear cables and such apart and reconnect them to the MIO. This one had different ends. A kind of screen to let the heat out. The first one had solid plastic ends. Right away, I found out that the cutouts around the cable connectors weren't big enough to allow for the shields on the cables, but they seemed to go on far enough. I took extra care when pluging in the power. Next, out came the manual. How do I configure this think again? Keep the manual next to me.

Turning on the power switch, I was almost afraid to lool at the LED's. VIOLA!! The Green LED is ON! It's WORKING! Uups! Don't speak too soon. Hold down SELECT and turn on the computer. Two seconds and on came the Configuration Screen!

Now, here, ICD could add a little more explaination on how to set up your RAMdisks. The MIO RAMdisk defaults to D6:, and, in my case, (256K) 192K. (61K is the default Print Spooler and 1K is used by the MIO.) Now I want my system set up to be: 130K for normal use, 192K in my 320K XE as D2:, and the 192K in the MIO as D3:. After trial and error, I find that the D6: must first be deleted. D1: must be set up as the Floppy; D2: left open; and D3: as RAMdisk.

Printer configuration next. Everything is OK, except it is set for CR Only.

My printer is set up that way so I need the MIO to add Line Feeds. The P:R:C comes set up with CR/LF, why doesn't the MIO come the same way? Oh, well. Easy enough to change. Now, the RS 232 port. Everything looks good here. Even if it isn't what you want, the software should change it as needed, the same as if it was a P:R:C.

Now for the acid test. I'm use to SpartaDOS by now and my BAT file is already set. For now, I want to use D3 strickly for data transfers and such, not to run programs out of. Turn off the computer, wait a few seconds (I have never had to wait more than a second for a power clear on my XE.), fingers off the keyboard and turn on power. On comes the screen; On comes the Disk; Sparta-DOS Boots! Enter TIME, then DATE, and off it goes, booting up 850 EXPRESS!.

EXPRESS completes and I'm ready! First, 'A' to switch to ASCII mode. Then 'ESC' to force Terminal Mode. Enter 'ATL1' (Command to the modem to set the speaker volume at minimum). Press 'CR'. - Nothing. I sould get an 'OK' back! Now What!?

An hour later, I've figured out that the RS 232 port is BAD! Printer and the rest of the MIO is OK. I even took the shield off of the cable and made sure the plug was all the way in the socket of the MIO. DISSCUSTING!! I redo the P:R:C: with only the modem connected and the MIO still in place so I'm using both. It works after I turn off the R port in the MIO Configuration. To bed and think about it all the next day.

After work, I rush home and reconnect the modem to the MIO. Reconfigure, and try it again. No change. Maybe something I don't understand. I call ICD and talk to the first lady, who switches me to another, and then finally to a technician, whom I explain for the 3rd time, my problem. I added that I had just taken it off the P:R:C. Answer, Send it to them, not CMO. The P:R:C is exactly the same as the MIO's R: port. On asking about how long

it would take to get it back, he said, Quote: '10 days, door step to door step.' unquote.

I should have written his name down for the record. Well, being too late on Friday to find the UPS center (NOT the U.S. POSTAL SERVICE this time.), I reconnected the modem to the P:R:C: and used the MIO all weekend. Really worked slick!

Monday morning I was running late and the MIO wasn't packed so I left without it. Monday night I packed it and then forgot it on Tuesday morning. Wedensday I remembered it and after work, found the local UPS center, not were I was told it was. I had given up and started home when I spoted 2 UPS truck come down off the freeway. Making a quick, illegal 'U' turn, I followed them right into the center. Four blocks and a hill away from where I was told they were.

That was March 9th. April 5th, no MIO and no word on it, so I call ICD. The nice lady on the other end does some checking, and says "the Technician is still working on it, but is out at the moment". April 22th, I call ICD again. Same lady, same song and dance. (Why are the Technicians always OUT?) This time I explain what I had been told originaly - 10 days turn around and so on (Should have gotten the technicians name).

April 23rd, my sons are staying with me for the weekend. We had just gotten back the the local Atari Dealer and my youngest wants to try out his new cardrigde. He's only 7, but grew up with the Atari 400 always there. My oldest son is on the 400 on the color TV, so I watch as my youngest plugs the cartridge into the XE adaptor and turns it on. 2 seconds later, instead of getting the opening screen to the game, up comes the RAM/ROM Test screen from the built in diagnostics! Now what the H#%&!!! Two hours later I resign myself to the fact that I have a bad computer. The RAM test says that the 1st, 12th, 20th and 21st 1K block is good and all the rest is BAD. I've

seen alot of bad RAM's, but never any to go out like this, so I suspect something else.

On and off for the next 4 days I work on it. Finally, on Tuesday, I break down and pull all 8 of the basic RAM's and put in sockets. While doing this, I tie all pin 1's together and then to a ground point. This is because all the RAM's I have are 256K's and pin 1 is the added Address bit. 8 new 256K RAM's, power on, and 2 seconds later, the disk drive comes on. BOOT! Five minutes later, I have the bad RAM and the other 64K RAM's back in place. The next day, I get a new 64K RAM and put it all back together. What next?

April 29th, aproximatily 9 months after ordering it, the MIO shows up again. By now, I'm in no hurry to do anything. On the back of the letter I sent in with the MIO, someone has written "Bad Printer Port. Check (so and so)". Now I know that was working. Then there was a list of components they had changed. The bright spot was the bill. NO CHARGE. Taking my sweet time, I set everything back up, re-doing all the cables. Now, it's been so long, I've forgotten how to get to the confiuration screen. Out comes the book and I do a quick scan. It all comes back, and I turn on power; MIO first, Disk Drive, modem, and then, holding down SELECT, the XE.

The Confiuration Screen! 2 minutes later, I'm ready. The Acid test, Again! In goes my Boot disk with 850 EXPRESS! and SpartaDOS 3.2d. Press RESET, and I'm off to the races! TIME and DATE are entered and on it goes, loading EXPRESS!. Now I've been here before, so don't get excited yet.

Finished loading, the EXPRESS menu awaits. First, change from ATASCII to ASCII on the menu. Next, press ESC to force Term Mode. Enter 'ATL1' and press RETURN. I should get an 'OK' in response from the modem. IT WORKS! IT WORKS! Four hours later, I went to bed, satified that it was ALL working properly.

One other note: I didn't mention that the MIO XE adaptor also had a problem. The rear cartrigde socket had 2 open pins where ICD had cut them close to the board and stuck a rubber foot on it. That was found and fixed back between the first and second MIO from CMO.

I am now happy to say that it is all up and working just fine. I even leave the MIO powered up all the time so I don't have to go through the Configuration each time I turn on my 320K XE. I am presently working, in my head, on a modification to the MIO to swap out the 256K ZIP's for 1 MEG DIP's. At the present price of $35.00 each, I'll wait, but sooner or later, I'll have 8 of them. ICD, what did you say about updating the 256K MIO's? Only in the factory? Nah - There's always a way.

Notes from the Editor
by Steve Pauley

Thanks to everyone for writing stuff for the newsletter. I know It's summer and there are a million other things to do this time of the year, but I hope some of you will take time to write something for the newsletter so we can keep up the volume during the lean months.

August Newsletter Deadline Articles:
If you would like to write something for the August newsletter, you must upload it to the SPACE or MAST bbs by July 31st. If you don't have a modem maybe someone else can upload it for you. You can also mail your articles to me on a disk. I can read Atari ST, IBM and Mac disks, but not Atari 8 bit. Give me a call at 560-2917 evenings if you need more info.

Ads:
All ads must be received by July 31st to appear in the August issue. The Ads should be accompanied with your check for payment. Check inside front cover of this newsletter for rates and sizes.

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New look for the MAST BBS
by Sysop S.Pauley

By the time you read this, the MAST BBS should be running with new software called Phoenix. Phoenix is put together by some of the same people who developed Collie which is what we were using. Collie is no longer supported and Phoenix is kind of the upgrade from it. If you like Collie menu structure, you should feel right at home.

Phoenix is about a year and a half old and is on version 1.06 which means the program is stable and all the known bugs have been eliminated. They will soon be releasing version 2.0 which should add even more features. Here are some of the new features that are already implemented the current version:

You can now do a (V) verbose listing of .ARC files on line. this is something I have seen on other systems and is a real useful feature.

Menu+ System which lets the sysop design multiple nested menus with options to dump files, conduct surveys, custom message and file areas, custom bulletin areas, online games, voting booths and more.

Much better control of Upload/Download limits and times. Time on the board can be adjusted by time of day and amount of downloading versus uploading. This should free the board up and make it easier for you to get on during those busy evening hours and help encourage those people who only download to start contributing to the board.

Downloading has been improved to included Xmodem/XmodemCRC, True Ymodem, Ymodem Batch, Zmodem and Zmodem Batch. The batch modes support wildcard file names.

Most of the improvements made have been in built in tools and automation for the sysop. While these features may not be directly visible to the user, it should help me provide an even better BBS for the users.

At this time not all of these features have been enabled by me because of the time it is going to take me to test and make sure each of them works right. Be patient.

Two more little details, I am not moving over the old user base so that means everyone is going to have to register as a new user again. If you fill out the questionnaire and you were on the old user list I will try to validate you the same day. The other thing is that the old message base is so screwed up right now, that I am going to be glad to get rid of it. That means that If you have left a message on the board and have not gotten a response, you may have to re-post it.

After a couple of weeks I think things should be back to normal. And of course If you have any ideas about things you would like to see on the board, now is the time to speak up.

Well that's it, hope to be typing at you on the BBS soon.

❗ News from the MAST Pres
By Jim Schulz

It's July and is rain ever going to return to Minnesota???? Well, MAST had another great month last month despite some problems and we have another great month planned for the month ahead. Before we go on, I would like to thank all of the MAST members for sticking around for me and the DOMs to arrive last month. It seems like each month that I can never learn to pace myself and I always seem to overdo it on MAST meeting day. I am extremely sorry that I was late, but as I said at the meeting that the old flu bug seemed to hit me again. In May, I was layed up the day after the meeting and this month on the day of meeting. Is the MAST meeting contagious??? I would like to thank Dave and Todd for their help in filling in for me while I was gone. We again had another rousing battle of the MidiMaze and expect another competition near the year end. Thanks for all who participated and for Dave Meile for getting stuff organized in Phil's absence. I would also like to thank you all for buying the DOMs last month and blank disks. You made it one of our best months this year!!! But the long hot summer of MAST is not over yet.... The best is yet to come......

Yes, this month's meeting is called MAST Member Appreciation Month. If you don't like the title, blame me. This month, we would like to pay tribute to the members of MAST for volunteering and buying the MAST DOMs. Without you, MAST would not exist. So what have I got planned for this month... First off, all members will get $1.00 off each $6.00 MAST DOM by showing their MAST membership card. Also, all update disks are free!!!! with your original disk. I have at least four and maybe more new update disks this month and they are all free to members. This is only the start. Also, we will be raffling off a number of small items and one commercial utility program and one commercial game program. The programs are yet to be determined, but they will be some of the best currently available. Raffle tickets will again be distributed with one per MAST member and one per each disk purchased. Finally, we will honor one of our MAST volunteers for their work for the club. It seems like we take our volunteers for granted and never really thank them. This year's honoree, if Phil can convince him to show up, is the most obvious choice for the first member in the MAST "Hall of Fame". Come to the meeting and join in thanking him for his help in getting MAST started and on its way!!! In addition, I have come upon some sample issues of both ST Informer and ST World which will also be free for the taking. These are old, but they will still give you an idea of what the newspapers are like. I have other things planned as well so come and cool off and check out MAST in the middle of the hot summer.

But this is not all that is planned for July!!! Yes, in addition to all the specials, we will have the first in a series of seminars by Phil. This month, Phil will look at Databases and the ST. He will describe databases in general and spotlight some of the high points of some of the best databases for the ST. Phil could use your help by demoing your favorite database. If you are interested, please leave Phil a mail message on the MAST BBS.

Is there more???? Yes, there is!!! Also, Dave Meile has purchase a video tape of some of the Cyber animation demos from Antic. If you want to see some spectacular animation done on the ST, drop by this month's meeting. We will show this video tape and let you judge for yourself what type of animation machine that the ST is. Lots of stuff planned so expect a big meeting in the month ahead with all of the above plus more of the best DOMs from MAST and the latest in ST news and rumors.

Coming in the months to come..... In August, MAST will hold its first gamefest showing off some of the best games for the ST with a few surprise challenges made by Phil over the games of Oids and Missile Command. See if Phil can keep his perfect record intact. Also we might have a surprise challenge over the game of Pengo from a recent MAST DOM, which I personally saw Phil get beat at..... A first!!! Good luck, Phil.... In September, MAST will hold its second swap meet. Bring your old, used, or unused ST software and hardware along with original documentation to sell or trade with fellow MAST members. The last swap meet was

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Did you know you can buy blank 5 1/4" and blank 3 1/2" Disk at both SPACE & MAST Meetings?

a big success so come early and trade good!!! In October, we will start the yearly procedure of election of officers. Currently, we have two positions available, Vice President and Newsletter Editor. More positions will likely be opening for the fall in the months to come. If you are interested in helping out, please drop me line or stop by and talk after the meeting. I'm sure that we can find something for you to do. More is planning also for the months of October and November. So stayed tuned for the best from MAST.

Also on the Monday following the MAST meeting, we will have the monthly MAST+ programmers meeting. Last month, we got bumped to Tuesday at the last minute. If you missed the meeting because of this, I'm sorry for the inconvenience. This month, nothing in particular is planned at this time except for the latest on the STdNET network and the latest information from Todd and Dale. Also expect some comments from John and Chuck is working up some stuff on Lattice C, the new ST Developer documentation, and some UNIX shell utilities for the ST. So even though nothing is planned, expect alot of activity and good discussion. As always, MAST+ meets at the First Minnesota building at Lexington and Larpenteur at 7:30pm on the Monday following the MAST meeting. I hope to see you all there!!!!!

Disk sales..... Disk sales were a little slow last month compared to the month of May. Disks are again in short supply. A day or two after the closing of the last newsletter, I got a letter from my disk sales company advising me that their prices were going up 10 cents a disk. So I stocked up..... Boy, did I stock up!!!! We now have enough disks until September or so. Once these disks are gone, the price will again have to rise 10 cents a disk. So I have allocated roughly 200 double-sided disks per month for the next few months. So if you are interested, get them while they are hot!!! The double-sided disks are still $1.15 each. In addi-

tion, MAST is selling pin-feed 3.5" over-the-top disk labels for $2.00 per 100 at a price which can't be beat. Also, I have extra blank disk labels for anyone who wants them and empty disk boxes as well. My basement is overflowing with disk boxes so if you are interested, please take as many as you want. Save me the trouble of having to toss all of these extra boxes. Newsletter.... This month, we are again a little thin on articles. How about telling the members what you are doing with the ST?? Tell us about your favorite public domain program or game?? We can also use tutorials and columns as well. Maybe I can twist Chuck's arm again to write for us.... Help make the SPACE/MAST newsletter the best around. Finally, come November, we will again be looking for a new newsletter editor. If you are interested, please see Phil or I for more information. Please check with Steve to find out what is really involved in putting a newsletter together. Please help!!!!! BBS..... Lots of news this month on the BBS front!!!! After a lot of downloading on my part and an extra amount of work on Steve's part, a new MAST BBS should be up as you read this. I have only seen parts of the new BBS software and it looks better than ever. If you haven't called in lately, it is worth a call just to see the new BBS in operation. Expect more information at the next MAST meeting and in next month's newsletter. Thanks, Steve for the extra effort. New stuff on the BBS this month include a number of conference notes, press release and news items from CES and COMDEX. • Also, I have uploaded about three months worth of ST Reports so there is a lot of good reading there as well. Lots of good news stuff!!! As always, feel free to leave your questions and I'm sure you will get an answer. A great source for ST news, rumors, and downloads and of course MAST news as well.....

Volunteer time.... Yes, it's time to see if we can find another MAST member willing to help the club out. This new

position is called a User Group Exchange Coordinator. Your responsibility would be to write letters to other ST user groups and start an exchange of information and newsletters, keep track of newsletters received, and read other user group newsletters and report back important information to the MAST officers. As you can see, this position includes some letter writing, some bookkeeping and some reading as well. Help MAST spread it name around, volunteer!!!
Something different..... How about something a little different for a change??? All ST owners are waiting patiently for the release of three updates to important ST programs. But for a number of reasons, these updates are way over due. Many people have ordered these updates, including me, and have not yet seen anything. So let's have a guessing pool to see guess the order of the three programs release. Let's go for $1.00 a chance to guess the order with a minimum of 20 chances to be sold before we start. MAST will then throw in $10 as well and the prize will be a gift certificate for the amount at Wizard's Works. The three programs in question are ST Talk Professional, Publishing Partner Professional, and Zoomracks III. If we have to wait, we might as well have fun doing it. Right??? For $1.00, try your best guess at the order of release. Or will we never see any of these programs????

Miscellaneous stuff..... First, the Current Notes group offer is almost ready to go. All members who signed up and gave me checks should have their first issue of Current Notes. If you want to subscribe to Current Notes at a super price, check here in the months to come. Second, we still need three additional ST owners to sign up for ST Applications. The deal is a year of ST Applications for $30.00. If you are interested, please see me at the next MAST meeting or drop me a note on the MAST BBS. Finally, I am still taking orders for the Universal Item Selector which is now called UIS II with the new update just

released. They are currently holding up shipments to fix a few minor bugs, but expect a demo if it arrives in time. Check the MAST BBS for a list of the new features. For $10.50, it can't be beat!!!

Well, that's a wrap for July!!! Lots of stuff planned with more to come. The envelope..... Where is the envelope???? Oh... no... If you can find the envelope, please bring it to the next MAST meeting. Where are you envelope??? Maybe next month, it will open and recommend Bubble Ghost or some of the other new games for the ST. We will see.....???? I hope to see you all at the July MAST meeting and the July MAST+ programmers meeting as well as on the MAST BBS. Happy computing!!!

Children Will Play
By Phil Seifert

Welcome back! At least that is how I feel right now. I have been very much, quite on the go the last few weeks and now maybe I can rest? Nah, there probably is going to be a Midi Maze game again somewhere. I know....my joystick knows....there has got to be, right? Betcha can't tell that I am addicted to this game! It was quite disappointing to not be able to attend the last MAST meeting and participate in the tournament. Congratulations to the winners!! If the information presented to me was correct the winner was Todd Burkey followed by Kurt Schumacher and Steve Pauley. Hmmm, Steve must have stopped playing Oids long enough to practice. Again, way to go, guys!!

When someone contemplates purchasing an ST, they usually think of the local computer specialty stores such as Wizard's Work and User Friendly. But are you also aware other places sell 1040 STs locally? Two places I know of are Rodger Dodger Music and Guitar Center. Did you also notice they are music stores? This is the one area the Atari ST line is doing

extremely well here in the United States. Musicians like the price and ease of use. The Atari line is rapidly becoming the machine to purchase for midi applications. In fact, the only real challenger is the Macintosh. At least as far as sophistication of the software. I should mention Rodger Dodger is located in Hopkins and Guitar Center is located in Roseville. Finally, there is a place on the other side of the river to satisfy any St. Paul people who do not have their passports ready and stamped with tourist visas.I know, that might seem like a cheap shot, but sometimes it appears to be true. What is the problem? Do we have to have everything located in our backyards so it becomes as easy to run to the computer retailer as it is to go to McDonalds? Heck, I know some people who don't like to go 5 miles to get some software for their ST. I am not sure if everyone realizes that we do have a good situation here in town. There are many areas around the country that do not have even one dealer within a few hundred miles. And these areas include some major cities. Tennessee still does not have computer specialty store that caters to the ST market. What I am trying to get at is support your local dealers. They do give the users group support and they do try very hard at stocking software & peripherals. Tell the stores what you would like to see them carry. Let them know you appreciate their efforts.

Lemme see, what have I been up to lately? Not a whole lot, just playing volleyball, basketball, tennis, racquetball, and Dungeon Master. Did you notice most of those activities do not involve the computer? It does appear there are many different things to do during the summer period other than sit around and watch your monitor display the neatest new graphics. I am sure this happens to many of you also. Attendance at the MAST meeting are usually the lowest during June thru August. So, we (meaning the officers of MAST & other helpful souls) try to come up with ideas to get you to come

in for the meetings. Last meeting, we had a midi maze tournament, this month will be a formal discussion on databases and if I am not mistaken, a game challenge month (right, Jim? it was July?!?). What we could use from you, the members, is your presence at the meetings. And ideas about activities you would like to see our group do. (No, I don't think I can get Jim to jump through a flaming hoop!) If you have ideas to stir interest or would like to see something done at the meetings, be sure to tell us.

I have to correct a mistake I made in last month's column. I attributed the program, Neodesk, to the wrong company. Neodesk, a replacement desktop shell system is written by Gribnif Software. This is definitely an interesting program, but sadly not complete or fully debugged. What I do like about is the ability to place program icons in the desktop itself. This does save the hassle of searching for the program through multiple directories. There are some other enhancements also. What I do not like is no text option for within the windows (at least this version), the amount of memory it takes up (145K. Guess I will have to get an ugrade or Mega in the long run.) and some weird screen stuff not clearing the mouse buffer or something properly. Ah well, I guess I can't expect everything to be perfect.

Hey! Anyone out there who feels they have the flair, style, and pizzazz to be the newsletter editor? We will be looking for a new one sometime soon, so give it some thought. The pay is lousy, the work hours are interesting, and you get to meet many ahhh.....shall we say different people? But the reward of the satisfaction of getting the job done is a definite plus. We have started our search early because this position is usually one of the hardest to fill. Steve Pauley has been doing an outstanding job and deserves all the accolades we can give him for doing this above and beyond our expectations! In fact, he even called me tonight to *remind* me that my column was due now.

Heck, I had forgotten all about it. Way to go, Steve. I shall remember that when we play Midi Maze next!!

I would like to put out what I consider the best utilities in the public domain. Things like Uniterm, ST Writer, and JSH (John Stanley's command line shell) all deserve to be in everyone's library. And they are available in the club DOMs. Many more good programs are also in there, like Sheet and Freebase. That is what I like about the ST, active program support from the users of the computer. This has helped Apple and IBM get to where they are now. Other programs I find invaluable are Arcshell (and Arc.ttp), and Picswitch. Yep, there is plenty of good stuff to be found in the DOMs. Check them out.I guess it is probably time for me to go ramble on down the dungeon halls. I can't stop playing that game! I will see everyone at this month's MAST meeting.

MAST Disks of the Month
By Jim Schulz

Yes, it's that time again for more MAST DOMs. But before we look at what's in store for this month, let's check out last month's rather large selection of disks:

#33 - ANALOG Disk #1 (Files and programs from ANALOG #36 to #43)
#124 - Mark Johnson C V2.0 (Latest update of the public domain C)
#225 - ANALOG Disk #2 (Files and programs from ANALOG #44 to #46)
#226 - ANALOG Disk #3 (Files and programs from ANALOG #49 to #58)
#237 - ANALOG Disk #4 (Files and programs from ST-Log #10 and #11)
#238 - ANALOG Disk #5 (Files and programs from ST-Log #11 and #12)
#254 - June DOM #1 (Utilities)
#255 - June DOM #2 (Applications)
#256 - June DOM #3 (Games)
#257 - June DOM #4 (More Games, and GFA and C programs)

#258 - June DOM #5 (Music programs and OSS Pascal programs)
#259 - Stocks and Bonds V3.0 (Stock Market simulation with sound)
#260 - Uniterm Support Disk (Support files for the Uniterm)
#261 - VDOS (Alternate menu interface in place of GEM)
#262 - JIL Cad V1.0C (Shareware CAD program)
#263 - UNIX Utilities #1 (UNIX utilities, documentation and shell)
#264 - UNIX Utilities #2 (UNIX utilities, and documentation)
#265 - ANALOG Disk #6 (Files and programs from ST-Log #13 to #16)
#266 - ANALOG Disk #7 (Files and programs from ST-Log #15 and #16)
#267 - ANALOG Disk #8 (Files and programs from ST-Log #16)
#268 - ANALOG Disk #9 (Files and programs from ST-Log #17 and #18)
#269 - ANALOG Disk #10 (Files and programs from ST-Log #17 and #18)
#270 - ANALOG Disk #11 (Files and programs from ST-Log #18 to #20)

Well, that was long list of disks for last month. So let's first take a quick look at the DOM news and on to this month's selection.....

Disk problems.... I haven't heard any loud screams since the last meeting so it finally looks like the disk problems are solved for another time. As I have mentioned before, I am putting the final touches on my disk checking program and I will be beta testing it with a number of heavy DOM buyers in the next month to see what they think. After that, it should be available to all members. With the latest changes, it now checks for and can spot all problem disks which I have run into to date. So stay tuned for better disks in the future!!!!!!

Prices.... All MAST DOMs are $6.00 each. In addition, the MAST news disk, the ST News disk and the doc disk are $2.00. Updates on old disks are $2.00 with the return of the original disk. Well,

this month is again special time for member appreciation month. All members with valid membership cards can buy the $6.00 MAST DOMS for $5.00 and all update disks are free with your original disk. So stock up this month and bring your card.

Doc disks.... Yes, I missed it again last month. This sounds like a broken record doesn't it. I now have about 50% of the disks scanned and should have the rest done by the end of the week. So expect a DOC disk this month for sure!!! So bring your $2.00 and get a new DOC disk. Please remember, this is not an updatable disk. Thanks.

ST News.... Yes, they also got lost again last month. With 23 new disks last month, another 15 disks would have broken me. So this is my goal for this month to get these done. I have only heard of one member interested in these disks so I hope that the interest is greater than that. I will have about 4 copies of each disk available at the meeting and I can arrange to have complete or partial sets available in advance if you contact me before the meeting. I will also be taking orders at the meeting for delivery at the August MAST meeting. This is quite a few disks and for $2.00 each the price cannot be beat. This is an excellent deal on a great ST disk magazine. Order a complete set today!!! Also, I will be posting a list of what is on each disk on the MAST BBS so check there for more on each individual disk.

Back issues.... Lately, I have been getting requests for back issues or a rather large collection of disks. If you would like to purchase 20 or more disks at one time, please contact me and I will arrange for delivery and a special price as well. After a couple of special requests, I thought that I would make this special deal available to all members of MAST as well.

So that's the news for July and now on to the public domain software...

ANALOG - Last month, I made it!!! We are now just about caught up

toANALOG's limit for disks to be prepared and sold. Depending on when ANALOG releases the material from the July issue, this will determine whether we will have a ANALOG/ST-Log disk this month. Otherwise, we now have 11 back issue disks to choose from as well. Thanks again for purchasing the ANALOG disks last month.

Uniterm - This month, we have another in the continuing series of Uniterm updates. This latest version now supports additional function keys and the loading of fonts. Also updated this month will be the

Uniterm support disk as well. Remember, this is a free update for members with cards this month. The best just keeps getting better.

Gulam - Yes, this is the UNIX shell command line program. This is latest update with more features and more bug fixes. Bring your old disk for free updates this month.

XLISP - This is an update to the original XLISP which appeared over two years ago on the MAST DOM. This disk includes version 2.0 of XLISP, documentation, sample programs, and source code as well. So if you want to program in LISP, then this is the cheapest route to go. Check it out!!!!

ST Xformer - Yes, the new version of the 8 bit emulator is due out on July 1st if all goes as planned. From what I have seen so far, it looks very good. Last week, a program was released that would allow you to read your DOS disks on the ST as well with a 5.25" drive with source as well. So the 8 bit conversion is getting easier and easier. If it is released, we will have it in July. Otherwise, it will be August.

ARC and ARCSHELL - A new version of ARC has just been released which adds a number of features including the PKARC squashing format. In addition, a new version of ARCSHELL has been released to support the new version of ARC with a number of new features as well. If you use ARC, you must get your hands on

this new version. Source code is also coming as well for this version so check for it this month or next.

Demo - Have you ever wanted to watch Atari attack IBM??? As strange as this may seem, this is the topic of a new animated demo with sound for ST. When I first saw it, it knocked me out. Let's see what you think as well. This is very well done and entertaining.

Star Trek the Next Generation - This is a new Star Trek game using the new series as a backdrop. This program starts with digitized sound and a picture as well. Check this double-sided game out!!! This is very well done.

Zmodem - This is a new transfer program/transfer protocol. I have been using it the last couple days with work and it is very fast and user friendly. Why Zmodem??? Well, the new MAST BBS now supports it and this is the only ST program to support ZMODEM (ED. The new MAST BBS will soon support Zmodem Batch, True Ymodem and Ymodem Batch, but these protocols have not been implemented at this time). If you use the MAST BBS, this program is well worth it. Source code is also available as well.

Well, that's a sample of what we have for this month with more coming every day. Check out the MAST BBS the week of the meeting of the latest update on this month's DOMs. As always, I do my best to put out as much good stuff as possible given the time that I have available. This month, my goal is to get a new DOC disk out and all of the ST NEWS disks available at the meeting. As always, expect the best from the MAST DOM.

If you can't make the meeting and would still like to get ahold of the DOM or would like to get ahold of the DOC disk, my address is
3264 Welcome Avenue North
Crystal, MN 55422

That's it for July. It's time for more disk making and work!!! Check out the new ST News disks this month and take advan-

tage of this month's specials on disks as well. All sorts of good new stuff is coming very soon..... I hope to see you all at this month's MAST meetings and on the MAST BBS.

New Software Expected from Infosom
by the Whip

Infosom has decided to release 3 new adventure games for the ST sometime this summer. I think we can expect these games to be as good as their past offerings.

"MASTered", will be the first to be released. Not to much is known about this game except that it has something to do with being teleported to a community center somewhere in St. Paul. There you are surrounded by 30 to 40 creatures with calculators on their belts and little disk cases. The object is to try and hold some kind of a meeting for a couple of hours and then get them to disperse before the enforcers show up. Realizing that most of these creatures now carry the newer solar power calcs, you have your work cut out for you. If you succeed you will then be dragged to a pizza joint by a few of the creatures who still have not found a reason for returning to their Compu-caves.

"DealerMan", will be released later this summer when the computer software season is expected (and must) to pick up. In this game you are expected to spend thousands of your own dollars buying all the latest Atari Hardware and Software and then you must pick the location of your new computer store, realizing that no matter where you put It, all but 3 people will be unhappy about the great distance they have to go to shop. The object then is to figure out how you can dump all this inventory so that you can open up yet another video tape rental center.

The program "PublisherErrErr", may never be released because of problems with the manual. If we do see it, the object

of the game will be to con several of your friends into writing stuff for a club newsletter. In case that sounds to simple, remember that you have to end up with just the right amount of stuff. You will lose 5000 bonus points for using the "Continued next month." Spell, not to mention the 1000 daily points for every day you are late. If you fail to have at least 75% of the newsletters delivered by the meeting date, your favorite game disk will be automatically formatted.

The above article is just a joke . . . I think?

Software Piracy: Who Cares?
by Jolly Roger

Why bother learning the intricacies of programming, or spend a bundle on a piece of software, just so you can "Unlock" the code of commercial software and make all the copies you want? There are much faster ways of pirating software now available.

Xeroing, I'm surprised no one has thought of this before. For instance. Just slap a copy of Choplifter onto a 25¢ copy machine and you can crank out hundreds of the things, just like that! Distribute them to your friends, neighbors, keep thirty for yourself.

One of the main drawbacks to this and other types of piracy is that you don't get the necessary documentation or at-

tractive packaging that comes with the software when you buy it off the shelf. Solution? Shoplifting! Just carry a folded newspaper into the store and slip in all the conveniently flat software packages that will fit.

Then there's the old .357 magnum/ stocking-over-the-head trick. In addition to free software, you can pick up a lot of extra cash this way. First load the .357 with dum dums (Continued on page 61)

RIBBON RE-INKING
Jim Scheib - 721-4185

The club can re-ink most printer ribbons (black) for a small fee. There is no longer a reason to use a faded ribbon! Ribbons that can be re-inked are: $1.00/ribbon - Spool to spool (all types) - Epson MX-80 and compatibles - Epson LX-80 and compatibles - C. Itoh Prowriter and compatibles (NEC 8023A/C) - Citizen 120 D - Panasonic - small ones that turn counterclockwise: $2.00/ribbon - Epson MX-100 and compatibles. Other ribbons can be attempted, too. But if you prefer, you can buy an adapter ($8.50 + $3.50 shipping and handling) for the club and receive half that amount in credit towards re-inkings. See Jim Scheib at the SPACE meeting, or Jim Schulz at the MAST meeting. Please pay in advance and be sure to have your ribbon(s) in a plastic bag.

Software Pick of the Month
By the Whip

Since Jim Schulz failed to come up with 2 software picks of the month, something about not being able to find the envelope, I did. I don't believe he even had an envelope. Well anyway, here is what I feel are some programs with real potential.
"Bankruptcy Street Writer"

This easy-to-use word processor is one of the most dynamic new programs on the market. In addition to standard text editing and formatting, it features a

unique "Chapter 11" option that's handy for any business on the rocks. It also automatically prints form letters that say, "Your check is in the mail." Bankruptcy Street Writer is the perfect choice for high-tech companies and software houses who want to be prepared for the worst in the upcoming shakeout in the industry. "DeBASE2"

Databases come and go, but this one's here to stay. Totally menu-driven, DeBASE2 will humiliate & degrade you every time you attempt to retrieve information, create files or even say "keyword."

ST. PAUL ATARI COMPUTER ENTHUSIASTS
& MINNESOTA ATARI ST

SPACE and MAST are independent user groups of owners of ATARI Home Computers. It has been organized by local owners of ATARI computers for the purpose of mutual self assistance and sharing of information. It is open to all interested computer enthusiasts.

Benefits of memberships in the groups include monthly newsletter mailed to your home, BBS access, software demonstrations, group purchases, public domain disk(s) of the month software at low prices, reference book library, educational software library (8-bit only) with over 20 titles, personal contacts/learning, greater information and awareness on the world of ATARI, software at discounted prices from dealers, question and answer session, etc. Come to a meeting to find out more.

SPACE - 8Bit Group The SPACE meetings are devoted primarily to the 8-bit ATARI computers such as the 400, 800, 600XL, 800XL, 65XE and 130XE. There is other ATARI related news and some 16-bit news at the SPACE meetings, as well. The SPACE group meets on the second Friday of each month at the Falcon Heights Community Center, 2077 West Larpenteur Avenue, at 7:30pm. Doors open at about 7:10pm.

MAST - ST Group The MAST meetings are devoted primarily towards the ATARI 520ST, 1040ST & MEGA computers. There will be ATARI related news items covered, but not 8-bit news. The MAST group meets on the third Friday of each month at the Falcon Heights Community Center, 2077 West Larpenteur Avenue, at 7:30pm. Doors open at about 7:10pm.

MAST+ - Programming Language User Sig MAST also has a programmer's group meeting. This group has a more technical discussion regarding programming the ST computers in a variety of languages. The group meets on the Monday following the MAST meeting at the First Minnesota bank on Lexington Avenue near Larpenteur Avenue. Meeting time is 7:30, with doors opening at about 7:20pm. The entrance is in the back of the building and leads to a stairway to the second floor.

For more information, or to confirm a meeting time and location, call Larry Vanden Plas (SPACE) 636-2415 or Jim Schulz (MAST) 537-5442.

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SPACE/MAST Membership Application

Name_____ Date_____

Address_____

City_____ State_____ Zip_____

Phone_____Equipment/System Used_____

Areas of Interest_____

Check one or both: SPACE____ MAST____

Renewal?____ Address Change?____ Membership Card Given?____

Dues: $15.00 per year - Please enclose with Application.
Mail to: SPACE/MAST, P.O. BOX 12016, New Brighton, MN 55112

SPACE/MAST NEWSLETTER